

result of the injection, at said inner surface of the cylindrical molded body between said upper and lower edges of said insert so as to be at a position corresponding to a position on said inner surface that is covered by said insert," as recited in claim 1.

To meet the limitation of the "injection gate mark" the Examiner relies on the thickened portion of the sidewalls in Hirata, which is illustrated in Fig. 13 at reference numeral 21. See Office Action at page 3. Based on even a cursory review of Hirata, a skilled artisan would immediately recognize that the thickened portion 21 would not be considered as an "injection gate mark" and that, instead, Hirata's injection gate mark would be located on the bottom of the container. Specifically, Figs. 10(A) and 10(B) of Hirata illustrate an injection core with an injection gate which opens at the bottom wall of the container. In this regard, in the November 20, 2007 Amendment, Applicants demonstrated that the term "gate mark" is well-known to mean a mark caused by the injection gate, and appearing as a protrusion of cured body forming material or a recession in the molded body. The injection gate mark is formed by detaching the cured resin inside the injection gate from the molded body. Specifically, a search of both of the terms "gate mark" and "injection molding" in the Patent Office's website yielded over 100 Patents and over 50 Published Patent Applications, which strongly suggests that the phrase "gate mark" has an established meaning in the art.

"Injection Molding Handbook," 2<sup>nd</sup> Ed., *Rosato et al.*, Chapman and Hall (1995) defines a "mold gate mark" thusly:

**Mold gate mark.** This is a surface discontinuity on a molded part caused by the gate through which material enters the cavity.

The above interpretation of "gate mark" is also supported by the specification. For example, in the embodiment illustrated in Fig. 6, after the resin in the mold is cured, a knock-out pin 23 is actuated "so that a cured resin piece inside the gate openings is separated and pushed away from the gate holes inside the gate openings with resulting impact force." See

specification at page 17, first paragraph. Referring to Fig. 7, the corresponding mark 10b of the gate opening can only be recognized from the rear of the molded cylindrical article. See specification at page 17, second paragraph.

Thus, Applicants' proposed interpretation of the term "gate mark" corresponds to the ordinary and customary meaning that the term has to a person of ordinary skill in the art, and is consistent with the specification. See MPEP §2111.01.

In contrast to Applicants' interpretation of the phrase "gate mark," the Examiner asserts that "because the resin of the thickened area is injected, the thickened area is formed by an injection gate opening, and is therefore an injection gate mark and is formed by injection." See Office Action at page 3. The Examiner further states on page 7 of the Office Action that "because the term 'gate' refers to an injection gate in the method of making the claimed article, and because the thickened area of Hirata et al is formed by an injection gate, the term 'gate mark' does not exclude the thickened area of Hirata et al." Thus, the Examiner's apparently construes the term "injection gate mark" to mean any injected material that is formed by an injection gate opening, as opposed to the accepted meaning in the art that "gate mark" refers to the distinctive mark caused by the injection gate when the cured resin in the injection gate is detached from the molded body. The Examiner's assertion is not supported by any evidence or argument that the Examiner's proposed interpretation is customary in the art. In any event, the Examiner's interpretation is inconsistent with the specification, which in one embodiment refers to a specific mark formed at the site of the injection gate opening.

Moreover, the Examiner is apparently asserting that "formed by an injection gate opening" is broad enough to encompass the thickened area of Hirata. However, the thickened portions of Hirata are no more "formed" by the injection gate than any other portion of the container. Thus, the Examiner's interpretation would encompass the entire container. By the

Examiner's interpretation the entire container would be "formed" by the injection gate, which would effectively and improperly remove the phrase "gate mark" from the claim.

Additionally, the Examiner asserts that the "it is not clear that the term 'gate mark' has been used to define a structural feature in a product claim of a previous patent." Applicants refer the Examiner to, without limitation, the product claims of numerous patents that were known in the art as of Applicants' filing date, e.g., U.S. Patents Nos. 6,059,432, 5,961,239, 5,632,467, and 5,463,270. The description of a gate mark in U.S. Patent No. 5,961,239 is representative of the meaning of the term "gate mark" in the art:

The inner surface portion of the enlarged port portion 7 opposes the gate of the mold during *injection molding*, and a mark which is formed when the gate is cut during mold release after molding, i.e., a gate mark 6, appears on this inner surface portion, as shown in FIGS. 3 and 4.

(col. 3, lines 15-19).

Contrary to applicable principles of claim construction, the Examiner ignores the well-established meaning of "gate mark" in favor of an interpretation that is neither supported by the art as whole or by Applicants' specification. Such an approach is improper. See MPEP §2111 ("The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach."). Thus, the rejection should be withdrawn because Hirata fails to disclose an injection gate mark in the position recited in claim 1.

Additionally, the applied references also fail to disclose or suggest "injecting a molten resin through said injection gate opening, such that the molten resin passes through the injection gate opening in a direction toward said molded body inner surface of the sidewall portion," as recited in claim 3.

As discussed above, Hirata's injection gate is illustrated in Figs. 10(A) and 10(B) where the gate opening faces downwardly with respect to the molded container. Thus, as the

material leaves the gate opening it will be traveling in a direction toward the bottom of the container, rather than the inner sidewall of the container, as required in claim 3.

In the outstanding Office Action, the Examiner states that "However, the limitation 'a direction toward the inner surface of the sidewall portion' does not limit the direction of travel to a sideways, as opposed to downward direction, because a sideways direction is not claimed." The Examiner's interpretation of this feature is taken out of context of the claim language. The Examiner's interpretation ignores the words "pass through the opening in a direction toward," which requires the resin to pass through the opening while traveling in a certain direction, i.e., toward the sidewall. Applicants respectfully submit that the only reasonable interpretation of Hirata is that the molten resin passes through the opening toward the bottom wall. Accordingly, the applied references fail to disclose or suggest the elements of claim 3.

Independent claims 28 and 30 recite similar features referred to in connection with claims 1 and 3 above. Thus, independent claims 28 and 30 are patentable over the applied references.

Claims 2, 4-6, 12-14, 22, 23, 26, 27 and 29 depend from one of independent claims 1 and 3 and are therefore also patentable over the applied references for at least the reasons enumerated above, as well as for the additional features they recite.

Accordingly, withdrawal of the rejections is respectfully requested.

**Full Review By Supervisory Patent Examiner Is Requested**

In accordance with MPEP §707.02, because this application has been pending for more than five years and because there have been more than three Office Actions, a careful and thorough review by Supervisory Patent Examiner is respectfully requested, and it is respectfully requested that the Patent Office makes every effort to conclude the prosecution of

this application. As stated in this section of MPEP, this application should be considered "special" by the Examiner.

Applicants requested supervisory review of this application as early as the July 26, 2006 Amendment. However, Applicants have received no confirmation that this application has received a thorough review by a Supervisory Patent Examiner. Thus, a review by a Supervisory Patent Examiner in accordance with MPEP §707.02 is again respectfully requested, as well as acknowledgement of such a review.

For all of the foregoing reasons, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Aaron L. Webb  
Registration No. 56,930

JAO:ALW/ldg

Date: June 3, 2008

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 320850**  
**Alexandria, Virginia 22320-4850**  
**Telephone: (703) 836-6400**

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--